Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A photomultiplier tube comprising:

a cathode emitting electrons in response to incident light;

a plurality of dynodes multiplying electrons emitted from the ~~cathode; and~~ cathode, each dynode extending in a prescribed direction, the plurality of dynodes having a first dynode having an edge in the prescribed direction and a second dynode having an edge in the prescribed direction, the first dynode receiving electrons from the cathode and multiplying the electrons and emitting the multiplied electrons, and the second dynode receiving the electrons from the first dynode and multiplying the electrons and emitting the multiplied electrons; and

potential regulating means disposed in a prescribed position ~~in relation to an edge of a first dynode positioned in a first stage from the cathode and an edge of a second dynode positioned in a second stage from the cathode,~~ between the edge of the first dynode and the edge of the second dynode, and smoothing an equipotential surface in a space between the first dynode and the second dynode along ~~a longitudinal direction of the first dynode.~~ the prescribed direction.

2. (Previously Presented) The photomultiplier tube as claimed in Claim 1, wherein the potential regulating means is a plate-shaped electron lens forming electrode disposed between the edge of the first dynode and the edge of the second dynode and arranged substantially parallel to a side wall of the first dynode and separated from the first dynode; and

a voltage is applied to the electron lens forming electrode to produce a higher potential than the potential of the first dynode.

3. (Currently Amended) The photomultiplier tube as claimed in Claim 2, wherein the plurality of dynodes further have a third dynode having an edge in the prescribed direction and receiving the electrons from the second dynode and multiplying and emitting the electrons, wherein the electron lens forming electrode is electrically connected to ~~an edge of a third dynode positioned in a third stage from the cathode.~~ the edge of the third dynode.

4. (Previously Presented) The photomultiplier tube as claimed in Claim 2, wherein the electron lens forming electrode is separated from the plurality of dynodes.

5. (Previously Presented) The photomultiplier tube as claimed in Claim 2, further comprising a second electron lens forming electrode disposed between an edge of the second dynode and an edge of the third dynode and arranged substantially parallel to the electron lens forming electrode and separated from the second dynode; and

wherein a voltage is applied to the second electron lens forming electrode to produce a higher potential than the potential in the second dynode.

6. (Previously Presented) The photomultiplier tube as claimed in Claim 5, wherein the second electron lens forming electrode is integrally formed with the electron lens forming electrode.

7. (Previously Presented) The photomultiplier tube as claimed in Claim 2, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

8. (Previously Presented) The photomultiplier tube as claimed in Claim 3, further comprising a second electron lens forming electrode disposed between an edge of the second dynode and an edge of the third dynode and arranged substantially parallel to the electron lens forming electrode and separated from the second dynode; and

wherein a voltage is applied to the second electron lens forming electrode to produce a higher potential than the potential in the second dynode.

9. (Previously Presented) The photomultiplier tube as claimed in Claim 4, further comprising a second electron lens forming electrode disposed between an edge of the second dynode and an edge of the third dynode and arranged substantially parallel to the electron lens forming electrode and separated from the second dynode; and

wherein a voltage is applied to the second electron lens forming electrode to produce a higher potential than the potential in the second dynode.

10. (Previously Presented) The photomultiplier tube as claimed in Claim 8, wherein the second electron lens forming electrode is integrally formed with the electron lens forming electrode.

11. (Previously Presented) The photomultiplier tube as claimed in Claim 9, wherein the second electron lens forming electrode is integrally formed with the electron lens forming electrode.

12. (Previously Presented) The photomultiplier tube as claimed in Claim 3, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

13. (Previously Presented) The photomultiplier tube as claimed in Claim 4, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

14. (Previously Presented) The photomultiplier tube as claimed in Claim 5, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

15. (Previously Presented) The photomultiplier tube as claimed in Claim 6, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

16. (Previously Presented) The photomultiplier tube as claimed in Claim 8, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

17. (Previously Presented) The photomultiplier tube as claimed in Claim 9, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

18. (Previously Presented) The photomultiplier tube as claimed in Claim 10, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

19. (Previously Presented) The photomultiplier tube as claimed in Claim 11, wherein the cathode, the dynodes, and the lens forming electrode are disposed in a hermetically sealed vessel that is cylindrical in shape and sealed on both ends;

the light enters the hermetically sealed vessel from one end thereof;

the dynodes are concave and substantially arc-shaped, the first dynode opening substantially toward the one end of the hermetically sealed vessel, the second dynode opening substantially toward another end of the hermetically sealed vessel, and the third dynode opening substantially toward the one end of the hermetically sealed vessel, and the electrons impinge on and are emitted from inner surfaces of the dynodes; and

the lens forming electrode forms a fan shape that follows the concave shape of the first dynode when viewed in a cross section along a direction orthogonal to the inner surfaces of the first dynode, second dynode, and third dynode.

20. (New) The photomultiplier tube as claimed in Claim 2, wherein the first dynode further has another edge opposite the edge of the first dynode in the prescribed direction and the second dynode further has another edge opposite the edge of the first dynode in the prescribed direction,

wherein the potential regulating means has a pair of plate-shaped electron lens forming electrodes, one of the pair of plate-shaped electron lens forming electrodes being arranged between the edge of the first dynode and the edge of the second dynode and the other of the pair of plate-shaped electron lens forming electrodes being arranged between the another edge of the first dynode and the another edge of the second dynode.

21. (New) The photomultiplier tube as claimed in Claim 20, wherein the pair of plate-shaped electron lens forming electrodes face each other.